

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Hutchison et al.

Application No. Not yet assigned

Filed: Filed herein

Confirmation No. Not yet assigned

For: SCAFFOLD-ORGANIZED CLUSTERS
AND ELECTRONIC DEVICES MADE
USING SUCH CLUSTERS

Examiner: Not yet assigned

Art Unit: Not yet assigned

Attorney Reference No. 1505-67959

COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this paper and the documents referred to as being attached or enclosed herewith are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450 on the date shown below.

Attorney
for Applicant(s)



Date Mailed February 19, 2004

INFORMATION DISCLOSURE STATEMENT
FOR CONTINUING APPLICATIONS

Listed on the accompanying form PTO-1449 are several English-language documents. Applicants respectfully request that such documents be listed as references cited on the issued patent.

The present application relies upon U.S. Patent Application No. 09/817,708, which was filed March 26, 2001, for an earlier filing date under 35 U.S.C. § 120. Furthermore, documents listed on the accompanying form PTO-1449 were disclosed to or cited by the Patent Office in the earlier U.S. application.

Copies of the documents listed on the accompanying form PTO-1449 that were cited by applicants in the earlier application need not be sent to the Patent Office pursuant to 37 C.F.R. § 1.98. However, applicants will furnish the Patent Office with such copies upon request.

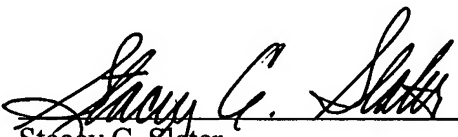
Copies of documents listed on the accompanying form PTO-1449 that were cited by the Patent Office in the earlier application are enclosed.

Please charge any fees that may be required to file this Information Disclosure Statement to Deposit Account No. 02-4550. A duplicate copy of this sheet is enclosed.

The filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, prior art or otherwise material to patentability as defined in 37 C.F.R. §1.56.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

By 
Stacey C. Slater
Registration No. 36,011

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204
Telephone: (503) 226-7391
Facsimile: (503) 228-9446

INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Attorney Docket Number	1505-67959
	Application Number	
	Filing Date	
	First Named Inventor	Hutchison
	Art Unit	
	Examiner Name	

U.S. PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Number	Date	Name
		4,522,932	06/1985	Mitchell, III
		5,242,877	09/1993	Dobson et al.
		5,389,401	02/1995	Gordon
		5,536,858	07/1996	LaLonde et al.
		5,521,289	05/1996	Hainfeld et al.
		5,578,248	11/1996	Hattori et al.
		5,952,172	09/1999	Meade et al.
		6,121,425	09/2000	Hainfeld et al.

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Number	Date	Country
		WO98/53841	12/3/98	Europe

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS
		Alivisatos, A., <i>et al.</i> , Organization of 'Nanocrystal Molecules' using DNA, <i>Nature</i> , 382:609-611, 1996.

EXAMINER SIGNATURE:	DATE CONSIDERED:
------------------------	---------------------

* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Attorney Docket Number	1505-67959
		Application Number	
		Filing Date	
		First Named Inventor	Hutchison
		Art Unit	
		Examiner Name	
		Andres, R., <i>et al.</i> , 'Coulomb Staircase' at Room Temperature in a Self-assembled Molecular Nanostructure, <i>Science</i> , 272:1323-1325, 1996.	
		Andres, R., <i>et al.</i> , Self-Assembly of a Two-Dimensional Superlattice of Molecularly Linked Metal Clusters, <i>Science</i> , 273:1690-1693, 1996.	
		Applicants co-pending U.S. Application No. 09/085,390, filed May 27, 1995, Scaffold-Organized Metal, Alloy, Semiconductor, and/or Magnetic Lusters and Electronic Devices Made Using Such Clusters.	
		Braun, E., <i>et al.</i> , DNA-Templated Assembly and Electrode Attachment of a Conducting Silver Wire, <i>Nature</i> , 391:775-778, 1998.	
		Brown, L. and Hutchison, J., Convenient Preparation of Stable, Narrow-Dispersity, Gold Nanocrystals by Ligand Exchange Reactions, <i>J. Am. Chem. Soc.</i> , 119:12384-12385, 1997.	
		Brust, M., <i>et al.</i> , Novel Gold-dithiol Nano-networks with Non-mettalic Electronic Properties, <i>Adv. Mater.</i> , 7:795-797, 1995.	
		Clarke, L., <i>et al.</i> , Fabrication and Near-room Temperature Transport of Patterned Gold Cluster Structures, <i>J. Vac. Sci. Technol. B</i> , 15:2925-2929, 1997.	
		Feldheim, D., <i>et al.</i> , Electron Transfer in Self-Assembled Inorganic Polyelectrolyte/Metal Nanoparticle Heterostructures, <i>J. Am. Chem. Soc.</i> , 118:7640-7641, 1996.	
		Geerligs, L., <i>et al.</i> , Frequency-Locked Turnstile Device for Single Electrons, <i>Phys. Rev. Lett.</i> , 64:2691-2694, 1990.	
		Grabar, K., <i>et al.</i> , Preparation and Characterization of Au Colloid Monolayers, <i>Anal. Chem.</i> , 67:735-743, 1995.	
		Itou, S., Reorientation of Poly- γ -Benzyl L-Glutamate Liquid Crystals in an Electric Field, <i>Jpn. J. Appl. Phys.</i> , 24:1234-1235, 1985.	
		James J. Storhoff and Chad A. Mirkin, "Programmed Materials Synthesis with DNA," American Chemical Society, pp. 1849-1862 (1999).	
		Likharev, K., Correlated Discrete Transfer of Single Electrons in Ultrasmall Tunnel Junctions, <i>IBM J. Res. Dev.</i> , 32:144-158, 1988.	
		Mirkin, C., <i>et al.</i> , A DNA Based Method for Rationally Assembling Nanoparticles into Macroscopic Materials, <i>Nature</i> , 382:607-609, 1996.	
		Niemeyer, C., DNA as a Material for Nanotechnology, <i>Angew. Chem., Int. Ed. Engl.</i> , 36:585-587, 1997.	
		O'Konski, C., <i>et al.</i> , Electric Properties of Macromolecules. IV. Determination of Electric and Optical Parameters From Saturation of Electric Birefringence in Solutions, <i>J. Phys. Chem.</i> , 63:1558-1565, 1959.	
		Osifchin, R., <i>et al.</i> , Synthesis of a Quantum Dot Superlattice using Molecularly Linked Metal Clusters, <i>Superlattices and Microstructures</i> , 18:283-289, 1995.	
		Peschel, S. and Schmid, G., First Steps Towards Ordered Monolayers of Ligand-Stabilized Gold Clusters, <i>Angew Chem. Int. Ed. Engl.</i> , 34:1442-1443, 1995.	
EXAMINER SIGNATURE:		DATE CONSIDERED:	
<p>* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>			

INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Attorney Docket Number	1505-67959
		Application Number	
		Filing Date	
		First Named Inventor	Hutchison
		Art Unit	
		Examiner Name	
		Pothier, H., <i>et al.</i> , Single-Electron Pump Based on Charging Effects, <i>Europhys. Lett.</i> , 17:249-254, 1992.	
		Qi, J. <i>et al.</i> , Ligation of Triangles Built from Bulged 3-Arm DNA Branched Junctions, <i>J. Am. Chem. Soc.</i> , 118:6121-6130, 1996.	
		Schmid, G., Hexachlorododecakis(triphenylphosphine)pentapentacontagold, $\text{Au}_{55}[\text{P}(\text{C}_6\text{H}_5)_3]_{12}\text{Cl}_6$, <i>Inorg. Syn.</i> , 27:214-218, 1990.	
		Schón, G and Simon, U., A Fascinating New Field in Colloid Science: Small Ligand-stabilized Metal Clusters and their Possible Application in Microelectronics, <i>Colloid Polym. Sci.</i> , 273:202-218, 1995.	
		Seeman, N., DNA Components for Molecular Architecture, <i>Accounts of Chemical Research</i> , 30:357-363, 1997.	
		Simon, U., <i>et al.</i> , The Application of Au_{55} Clusters as Quantum Dots, <i>Angew Chem. Int. Ed. Engl.</i> , 32:250-254, 1993.	
		Whitesell, J., <i>et al.</i> , Directionally Aligned Helical Peptides on Surfaces, <i>Science</i> , 261:73-76, 1993.	
		Wybourne, M., <i>et al.</i> , Coulomb-blockade Dominated Transport in Patterned Gold-Cluster Structures, <i>Jpn. J. Appl. Phys.</i> , 36:7796-7800, 1997.	
		Yano, K., <i>et al.</i> , Transport Characteristics of Polycrystalline-Silicon Wire Influenced by Single-Electron Charging at Room Temperature, <i>Appl. Phys. Lett.</i> , 67:828-830, 1995.	

EXAMINER SIGNATURE:	DATE CONSIDERED:
<p>* Examiner: Initial if reference considered, whether or not in conformance with MPEP 609. Draw line through cite if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>	